IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT APPLICATION

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Inventor(s): CASTENMILLER et a		/0 🔊			Examiner:		o, Allen C		
Appln. No.: 09	739,622		Ç	g∖ At	ty. Dkt.		5503	P-0166.010	-US
Series Code ↑	Serial No. 个	4 6	Pnnc	ш .			V#	Client Ref	
Filed: December 20, 2000 Hon. Commissioner of Patents Washington, D.C. 20231				Appln. Title:		POSITION DETECTION SYSTEM FOR			
Hon. Commissioner of Patents	\$ /		USE IN LITHOGRAPHIC APPARATUS						
Washington, D.C. 20231		*	روي ا	•				Ē	•
VVasimigton, D.O. 20201		TRAD	EMAL				•	$\mathbf{\Xi}$	
Sir:								<u> </u>	召
	NT/I ETTED				Date:	May 16	2003	מרייפון 2	
<u>REPLY/AMENDME</u>		Dale.	iviay 10	, 2003	6 2	Œ			
This is a reply/amendment/letter in t	rha abaya idanti	fied applicati	ion and	include	ac the hom	with attac	hmont of	camb date	nd subject
This is a reply/amendment/letter in the above-identified application and includes the herewith attachment of same date and subject which is incorporated hereinto by reference and the signature below is treated as the signature to the attachment in absence of a									
	rerence and the	signature be	elow is	treated	as the sig	nature to	ine attaci	iment in abse	nceora
signature thereto.								25 00	
1. Small Entity claim FEE REQUIREMENTS FOR CLAIMS AS AMENDED Control of the con									
1. Small Entity claim								0	
A. NOT made For B & C	Claims	Highest nu		Present Extra		Large/Small Entity		Additional	Fee Code
B. Withdrawn See Required Separate Paper	remaining after				ļ			Fee	1 10
C. I made herewith Separate Paper (Pat-256)	amendment								Lg/Sm
B. C. made providedly		j							
0.7.1.15% (101.1	140	1	L 00			040/00		. 60	102/202
2. Total Effective Claims	19	**minus	20	0		x \$18/\$9		+ \$0	103/203
3. Independent Claims	5	***minus	5	0		x \$84/\$4	2 =	+ \$0	102/202
4. If amendment enters proper multiple dependent claim(s) into this application for first									
time (leave blank if this is a reissue application)					add	+ \$280/\$	3140 =	+ \$0	104/204
5. Original due Date: April 16, 2003									
6. Petition is hereby made to extend the original due (1 mo) \$110/\$55 =									115/215
date to cover the date this response is filed for which the (2 mos) \$410/\$205 =					\$205 =	+ \$110			116/216
					\$465 =			,	117/217
(4 mos) \$1,450/\$725									118/218
(5 mos) \$1,970/\$9						128/228		128/228	
						- \$0			
7. Enter any previous extension fee <u>paid</u> since above <u>original</u> due date and <u>subtract</u>								. 00	<u> </u>
8.						Extension Fee		+ \$0	1.40/0.40
9. If <u>Terminal Disclaimer</u> attached, <u>add</u> Rule 20(d) official fee						+ \$110/\$55		+ \$0	148/248
10. If IDS attached requires Official Fee under Rule 97 (c), add						+ \$180		+ \$0	126
or if Rule 97(d) Requestadd						+ \$180		. 40	126
11. After-Final Request Fee per rules 129(a) and 17(r)						+ \$750/370		+ \$0	146/246
12. No. of additional inventions for examination per Rule 129(b)						x \$750/375 ea		+ \$0	149/249
13. Request for Continued Examination (RCE)						+ \$750/375		+ \$0	1179/1279
14. Polition for for						- ψι σσισ		+ \$0	
						TOTAL			
						IOTAL	. FEE =	\$110	
16. *If the entry in this space is less than entry in next space, the "Present Extra" result is "0".							PLEASE C	HARGE	
17. **If the "Highest number previously paid for" in this space is less than 20, write "20" in this space. 18. ***If the "Highest number previously paid for" in this space is less than 3, write "3" in this space.							OUR DEP.	ACCT	
18. White Trighest number previously pa	id for in this space	is iess than 5, v		•		No 02 20	75)		
Our Deposit Account No. 03-3975) (Our Order No. 81468 / 275503									
(Our Order No. <u>01400 273303 C# M#</u>									
CHARGE STATEMENT: The Commissioner is hereby authorized to charge any fee specifically authorized hereafter, or any missing or insufficient fee(s) filed, or asserted to be									
filed, or which should have been filed herewith or concerning any paper filed hereafter, and which may be required under Rules 16-18 (missing or insufficiencies only) now or									
hereafter relative to this application and the result	ing Official Document	under Rule 20, o	r credit ar	y overpay	ment, to our A	ccounting/Or	der Nos. sho	wn above, for which	h purpose a
duplicate copy of this sheet is attached. This CHARGE STATEMENT does not authorize charge of the issue fee until/unless an issue fee transmittal sheet is Ouervils appeal deadline now? If									
Glad God 1. 16 appear deduction from .									
so, file Notice of Appeals Separately.									
Pillsbury Winthrop LLP									
Intellectual Property Group									

Sig: Fax: (703) 905-2500 Tel: (703) 905-2045

NOTE: File this cover sheet in duplicate with PTO receipt (PAT-103A) and attachments

By Atty: John P. Darling

P.O. Box 10500

Tel: (703) 905-2000

Atty/Sec: JPD/tmt

McLean, VA 22102

Reg. No. 44,482

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE-

In re PATENT APPLICATION OF

Confirmation No.: 4742

CASTENMILLER et al.

Group Art Unit: 2882

Appln. No.: 09/739,622

Examiner: Ho, Allen C.

Filed: December 20, 2000

Title: POSITION DETECTION SYSTEM FOR USE IN LITHOGRAPHIC APPARATUS

May 16, 2003



AMENDMENT UNDER 37 C.F.R. §1.111

Hon. Commissioner of Patents Washington, D.C. 20231

Sir:

In reply to the Office Action dated January 16, 2003, the period for reply being extended by a Petition for One-Month Extension of Time filed herewith, please amend the above identified application as follows:

IN THE DRAWINGS:

Please amend Figure 2 as shown in the attached Request for Approval for Drawing Corrections.

IN THE SPECIFICATION:

Please amend the specification as follows:

Please delete the whole paragraph beginning on page 10, line 21 and replace it with the following paragraph:

9

FC:1251

05/19/2003 WABDELR1 00000078 033975

Ideally, the positions of the radiation source/detector units on the metrology (reference) frame and the reflectors on the table are such that the table can be moved to a position where zero outputs are given for all six degrees of freedom simultaneously. (It should be noted though that the "zero" position need not be the position at which all detectors give their zero or mid range outputs; any repeatable and unique combination of output signals from the three 2-dimensional detectors can be defined as the zero position.) In other words, the capture zones of all the detection apparatus 10A, 10B, 10C should overlap. However, it